UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

### NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 08/22/2008

Joseph S Tripoli Thomson Multimedia Licensing Inc P O Box 5312 Princeton, NJ 08543-5312 EXAMINER
MATTIS, JASON E

PAPER NUMBER

ART UNIT

DATE MAILED: 08/22/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,555	12/22/2004	Maxim Borisovich Belotserkovsky	PU020325	8403

TITLE OF INVENTION: METHOD AND APPARATUS FOR ANTENNA SELECTION USING CHANNEL RESPONSE INFORMATION IN A MULTI-CARRIER SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	11/24/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further e indicated unless correcte maintenance fee notificat	form should be used I correspondence including d below or directed of	or trang the nerwise	nsmitting the ISSU Patent, advance on in Block 1, by (a	TE FEE and PUBLICAT ders and notification of a) specifying a new corre	TON FEE (if requestion requestion in the contract of the contr	ired). I vill be ; and/o	Blocks 1 through 5 sl mailed to the current r (b) indicating a sepa	nould be completed where correspondence address as rate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Noi Fee pap bay	Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
P O Box 5312	nedia Licensing Inc			I be	Cer	rtificate	of Mailing or Trans	
Princeton, NJ 08.	543-5312							(Depositor's name)
								(Signature)
								(Date)
APPLICATION NO.	FILING DATE			FIRST NAMED INVENTOR		ATTORNEY DOCKET NO. CONFIRMATIO		CONFIRMATION NO.
10/518,555	12/22/2004		Max	tim Borisovich Belotserko	ovsky		PU020325	8403
TITLE OF INVENTION MULTI-CARRIER SYS		PPAR	ATUS FOR ANT	ENNA SELECTION US	SING CHANNEL	RESP	ONSE INFORMATIO	N IN A
APPLN. TYPE	SMALL ENTITY	IS	SUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO		\$1440	\$300	\$0		\$1740	11/24/2008
EXAM	INER		ART UNIT	CLASS-SUBCLASS	]			
MATTIS, I	JASON E		2616	370-329000				
"Fee Address" indi PTO/SB/47; Rev 03-0; Number is required.  3. ASSIGNEE NAME AT	ess an assignee is ident 1 in 37 CFR 3.II. Comp	" Indicated. Us	ation form e of a Customer E PRINTED ON		wely, le firm (having as a agent) and the nam orneys or agents. If printed.  pe)  patent. If an assign assignment.	n memb ies of u no nan	p to p to p to g to g to g to g to g to	ocument has been filed for
4a. The following fee(s) a	are submitted:		41	inted on the patent):				shown above)
Publication Fee (No small entity discount permitted)			ed)	☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any				
Advance Order - #	of Copies			overpayment, to Depo	y authorized to cha osit Account Numb	rge the	required fee(s), any de (enclose a	ticiency, or credit any n extra copy of this form).
	SMALL ENTITY state	ıs. See	37 CFR 1.27.	b. Applicant is no lor				
NOTE: The Issue Fee and interest as shown by the r	I Publication Fee (if req ecords of the United Sta	uired) tes Pat	will not be accepted ent and Trademark	from anyone other than Office.	the applicant; a reg	istered	attorney or agent; or th	e assignee or other party in
Authorized Signature					Date			
Typed or printed name	,				Registration N	No		
This collection of informa an application. Confident submitting the completed this form and/or suggestic Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C iality is governed by 35 application form to the ons for reducing this bu irginia 22313-1450. DC 13-1450.	FR 1.3 U.S.C USPT rden, sl O NOT	11. The informatic . 122 and 37 CFR O. Time will vary hould be sent to th SEND FEES OR	on is required to obtain or 1.14. This collection is es depending upon the indi e Chief Information Offic COMPLETED FORMS T	retain a benefit by timated to take 12 vidual case. Any co er, U.S. Patent and O THIS ADDRES:	the pub minute omment Trader S. SEN	lic which is to file (and s to complete, includin ts on the amount of tin nark Office, U.S. Dep D TO: Commissioner	by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

pss: COMMISSIONER FOR PATENTS P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 08/22/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,555	12/22/2004	Maxim Borisovich Belotserkovsky	PU020325	8403
7:	590 08/22/2008		EXAM	IINER
Joseph S Tripoli			MATTIS,	JASON E
Thomson Multimedia Licensing Inc			ART UNIT	PAPER NUMBER
P O Box 5312			2616	
P O Box 5312 Princeton, NJ 08543-5312			2616	10

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 775 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 775 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)	
0/518,555	BELOTSERKOVSK	Y ET AL.
xaminer	Art Unit	
ASON E MATTIS	2616	

- The MALING DATE of this communication appears on tall claims being allowable, PROSECUTION ON THE MERITS IS (OR REMOTE) and the previously mailed), a Notice of Allowance (PTOL-85) or other OTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. The Office or upon petition by the applicant. See 37 CFR 1-313 and MP	AAINS) CLOSED in this application. If not included appropriate communication will be mailed in due course. THIS This application is subject to withdrawal from issue at the initiativ
. Mathematical This communication is responsive to the Request for Continued Example 1.	amination filed 6/6/08.
<ol> <li>∑ The allowed claim(s) is/are <u>1-20</u>.</li> </ol>	
Acknowledgment is made of a claim for foreign priority under 35 U a   M   b)   Some* c)   None of the:   1.   Certified copies of the priority documents have been re 2.   Certified copies of the priority documents have been re 3.   Copies of the certified copies of the priority documents International Bureau (PCT Rule 17.2(a)).  *Certified copies not received:	ceived.  ceived in Application No  have been received in this national stage application from the mmunication to file a reply complying with the requirements his application.  e the attached EXAMINER'S AMENDMENT or NOTICE OF (s) why the oath or declaration is deficient.  mitted.  ant Drawing Review ( PTO-948) attached  ment / Comment or in the Office action of ould be written on the drawings in the front (not the back) of according to 37 CFR 1.121(d).  DLOGICAL MATERIAL must be submitted. Note the
Attachment(s) .	5. Notice of Informal Patent Application 6. Interview Summary (PTO-413), Paper No./Mail Date . Zaminer's Amendment/Comment 8. Examiner's Statement of Reasons for Allowance 9. Other
	/FIRMIN BACKER/
	Supervisory Patent Examiner, Art Unit 2616

Application/Control Number: 10/518,555 Page 2

Art Unit: 2616

# DETAILED ACTION

 This Office Action is in response to the Request for Continued Examination filed 6/6/08. Claims 1-20 are currently pending in the application.

# Allowable Subject Matter

- Claims 1-20 are allowed.
- The following is a statement of reasons for the indication of allowable subject matter:

Independent claims 1, 8, and 14 are allowable since none of the prior art of record discloses or renders obvious the claim limitation stating, "determining an intermediate channel quality metric (CQM) for each group of N bits of the channel response data by determining which group of N bits corresponds to the weakest corresponding channel response estimate, where N is an integer; and selecting the intermediate channel quality metric corresponding to the weakest channel response estimate as the overall channel quality metric for the channel". Claims 2-7, 9-13, and 15-20 are allowable since they each depend on and further limit one of the allowable independent claims.

Art Unit: 2616

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON E. MATTIS whose telephone number is (571)272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571)272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JEM

/FIRMIN BACKER/ Supervisory Patent Examiner, Art Unit 2616